

**Chapter 500: *Stormwater Management***  
***and***  
**Chapter 502: *Direct Watersheds of Lakes Most at Risk from New Development***  
***and Urban Impaired Streams***

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BASIS STATEMENT

The Maine Department of Environmental Protection is proposing revisions to Chapters 500 and 502 affecting how stormwater is regulated in the State of Maine. The changes will improve the regulatory program and satisfy the requirements of 2003 Public Law Chapter 607 that was enacted by the second regular session of the 121<sup>st</sup> Maine Legislature. Chapter 607 allows the Board to adopt changes that do not conform to existing statutory language in Title 38, Section 420-D, Stormwater Management Law. Rules must be provisionally adopted and submitted to the Legislature no later than January 2, 2005. In addition, the Department must submit a bill to the First Regular Session of the 122<sup>nd</sup> Legislature no later than January 2, 2005 to amend existing Section 420-D to resolve inconsistencies between that statutory provision and the provisionally adopted rules.

Several factors have led the department to conclude that revisions to the program are needed. First, experience in administering the existing program has demonstrated that stormwater is a complicated program to manage. The existing rules have been confusing for both the regulated public and for the department staff in charge of administering it, with multiple review thresholds and standards. Second, the existing rule does not even include all the “most at risk” areas that were envisioned when the rule was originally adopted. In particular, a complete list of “most at risk” rivers and streams has not been established. Originally, the department lacked sufficient data to compile such a list. Now the department has data that would allow a list to be established. However, doing so would add even more complexity to the program. Third, the existing program, as it currently operates, is not providing water quality protection for Maine’s most pristine waters and creates an incentive for developers to locate in “cleaner” watersheds where the regulatory requirements would be less. And fourth, federal stormwater rules have gone into effect over the past eighteen months, which add to complexity of stormwater requirements overall.

To help the department address these concerns, a stakeholder group was convened and met monthly over the past year. While the group did not reach consensus on the proposed rules, general agreement was reached on guiding principles, which the department has attempted to follow. The guiding principles and how they are met by the proposed changes are described below.

1. Stormwater standards should result in meaningful protection. They should accomplish protection without unnecessary requirements; they should be achievable, cost-effective and based on good science.

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*The proposed revisions will provide more effective and meaningful protection by streamlining the rules into one set of standards focused on the protection of water quality. Flexibility is built into the rule. A variety of treatment options are available to meet standards and, in some cases, provisions are built in for compensation fees and mitigation, providing flexibility without sacrificing protection.*

2. Stormwater standards should not foster an unintended consequence of sprawl, as defined by state policy.

*The standards proposed in these rules will not foster an unintended consequence of sprawl because quality standards will apply everywhere, not only in watersheds already facing challenges to water quality, eliminating differential regulation based on location. Treatment will be provided in watersheds of pristine waters as well as waters in more developed watersheds, protecting all of Maine's waters equally. Although there are additional treatment requirements for large projects in urban impaired stream watersheds, the rules provide flexibility for meeting the requirements through a compensation fee or through off-site or on-site mitigation.*

3. Stormwater standards should be understandable. They should be comprehensible and written in plain English. They should not be unnecessarily complex.

*The language and organization of the rule have been changed substantially to improve understandability by both the regulated community and department staff. A single threshold of one acre of disturbance eliminates multiple, and sometimes confusing, thresholds for jurisdiction. An accompanying flowchart will reflect cascading standards that may apply to a project.*

4. Stormwater standards should not conflict with other major environmental initiatives.

*These rules will not conflict with other major environmental initiatives. Quality treatment in all watersheds will contribute a measure of protection not currently provided and forestall water quality degradation resulting from untreated stormwater runoff. Protection has been added for urban impaired streams while retaining designations for most at risk lakes to provide protection for these more eminently threatened resources.*

The Board of Environmental Protection received a number of comments on this rule during and following a public hearing held August 19, 2004 in Augusta, Maine. Written comments were accepted into the record until 5:00 P.M. on September 1, 2004.

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**LIST OF COMMENTATORS**  
*(in random order )*

- A) Paula Thompson, Maine State Planning Office\*
- B) Scott Williams, Coalition of Lake Associations and the Volunteer Lake Monitoring Program
- C) Pam Deahl, HydroInternational
- D) Gerry Mirable, Central Maine Power Company
- E) Juliet Browne, Verrill & Dana
- F) Jeffrey McNelly & Jon Van Bourg, Maine Water Utilities Company
- G) Paul Porada, Woodard & Curran
- H) Thomas Doyle, Pierce Atwood\*
- I) Aganieszka Pinette, Land Use Regulation Commission
- J) Jeffrey Edelstein, Interlocal Stormwater Working Group\*
- K) Elizabeth Payne, Bangor Area Citizens Organized for Responsible Development\*
- L) Andrews Tolman, Maine Drinking Water Program\*
- M) Jeff Austin, Maine Municipal Association\*
- N) Virginia Davis, Preti Flaherty, representing Maine Real Estate Developers Association (MEREDA)\*
- O) Christine Olson, Maine Department of Transportation\*
- P) Nick Bennett, Natural Resources Council of Maine\*

\* indicates member of Stormwater Stakeholders Group

**RESPONSE TO COMMENTS FOR 2004 RULEMAKING**

This document notes the substantive comments offered in commentaries at hearing and in writing, and the Department's response to those comments. The number in parentheses at the end of the comment corresponds to the commentators noted above. The comments are arranged in ascending order corresponding to the sections they refer to, with final responses to more general comments on the proposed rule. All references to section numbers refer to the numbering as it appeared in the draft version posted to public hearing on July 1, 2004.

**Chapter 500**

**Section 3. Definitions.**

- 1) Comment: A significant number of definitions have been added to the chapter resulting in almost four pages of definitions. A goal of the stakeholders was to make the rules more

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comprehensible. Four pages of definitions establish the readers' expectations that the rules are technical and complex rather than user friendly. Definitions of terms that are defined in other rules should be eliminated and definitions that relate to discrete sections of the rule should be moved to the text that uses that term. (N)

*Department response: During the process of administering this rule and developing updates, it became clear that a number of additional terms needed to be defined. Although the DEP agrees that having many definitions can be daunting initially, it is felt to be more important that the definitions of terms used in the rule be available to those using the rule. Having a more complete list of definitions helps to avoid conflicts and misunderstandings, and increases predictability for applicants.*

*If a term is used only once in the rule, it is defined where it appears in the text. If it is used two or more times, it is defined in the definition section. Repeating definitions in the text when they are used in multiple locations would very significantly lengthen the rule.*

*Definitions of terms that are used in rules adopted under laws other than the Stormwater Management Law need to be referenced in Chapter 500 in order to be legally applicable to Chapter 500 and the projects to which it applies.*

- 2) Comment: Redevelopment of existing impervious surface should not trigger stormwater permitting pursuant to Chapter 500. Under the current Chapter 500 rules, redevelopment of impervious surface is not defined as "disturbed." The apparent reason is that turning an existing paved parking lot into a parking lot with a building (having no increase in total impervious area) does not materially impact stormwater runoff from the site.

The proposed rule does define "disturbed area" to include redevelopment. This could potentially discourage redevelopment of underutilized urban areas. The state, through several other programs, actively encourages the re-use and redevelopment of urban areas, in large part for the environmental benefit (reducing sprawl). This change in definition is inconsistent with these other state goals. This would seem to violate two of the principles reached by the stakeholder group (2. Stormwater standards should not foster an unintended consequence of sprawl; and 4. Stormwater standards should not conflict with other major environmental initiatives). DEP appeared to assert that federal law required the change. This is a complicated and confusing issue; the Attorney General should be consulted concerning the apparent federal obligation. There is reason to believe that this change is not needed or at least not uniformly needed throughout Maine. (M)

*Department response: The NPDES (National Pollutant Discharge Elimination System) Stormwater Program does include areas that are being redeveloped under the definition of "disturbed area" for the purpose of determining jurisdiction. Although permits issued under Maine's Stormwater Law are not NPDES permits, the revised "disturbed area" definition in Chapter 500 is proposed so that the State and Federal programs will be more consistent.*

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*However, the department concurs that redevelopment should be encouraged where possible and that there should be credit given for re-utilizing existing impervious area. Therefore, a change in the rule has been made in Section 4(c)(v) to only require that the Basic standards be met for Stormwater Law projects that are not increasing impervious area. Stakeholders indicated that re-development costs associated with meeting stormwater standards for a project subject to the Site Law are not often driving factors in choosing the development location, therefore the authority to require a project subject to the Site Law to meet all applicable stormwater standards is retained.*

- 3) Comment. The definition of "developed area" should be eliminated and the term "disturbed area" used in its place. Jurisdiction is based on disturbed area, and it is difficult to see what is accomplished by adding the term "developed area". The term "developed area" seems to track the existing definition of disturbed area, and seems to be included so that the jurisdictional threshold is lowered by counting all disturbed area and not eliminating the areas returned to pre-development patterns. The rules are complicated enough, adding a third category "developed area" to trigger different requirements makes the rule unnecessarily complex without adding protection. Eliminate the term "developed area" and use "disturbed area" as it is defined in the current Chapter 500. (N)

*Department response: A "disturbed area" continues to be considered as "disturbed area" for purposes of jurisdiction if it meets the definition of "developed area" or "impervious area" following final stabilization. Other areas are no longer counted after final stabilization. This approach is consistent with how the department counts "disturbed area" for purposes of jurisdiction under the Maine Construction General Permit. It is also very similar to how structure area and developed area have been approached under the Site Law for many years. To do otherwise would allow developed area to accumulate on a parcel over time, to unlimited size, without triggering stormwater requirements. This would not be protective. On the other hand, a disturbed area of less than one acre that does not meet the definition of developed or impervious area following final stabilization is not carried forward for purposes of determining jurisdiction. Where such an area is returned to a condition with the same drainage patterns and vegetative cover type that existed prior to the disturbance, this is appropriate.*

*It is also sometimes necessary to differentiate between "impervious area" and other types of developed area, because of potential differences in stormwater impacts from such areas. This is reflected in a variety of ways in the chapter. For example, in the direct watersheds of urban impaired streams, BMP standards must be met if 20,000 sq. ft. of impervious area or 5 acres of developed area is proposed. Projects creating less than specified thresholds of impervious area and developed area may be eligible for permit by rule.*

- 4) Comment: The definition of "direct watershed of a waterbody" should be revised. It should be clear that if a project is in the watershed, but downstream of an impaired section (so that it will not contribute pollutants) it is not in the direct watershed. Also, the definition includes tributaries which is a very broad scope. The definition should be defined. (N)

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*Department response: The DEP has not proposed changing the definition in the current rule, which reads:*

*"The land area that drains, via overland flow, natural or man-made drainage systems, or waterbodies or wetlands, to a given waterbody or wetland without first passing through an upstream waterbody classified as GPA."*

*The impaired urban streams listed in this rule are very small, having watersheds of 10 square miles or less. It is not reasonable given a goal to be protective, or possible given available data, to define impaired segments on these streams so as to allow increased pollutant discharges on some reaches but not on others.*

*The comment is correct that "natural or man-made drainage systems" includes tributaries. The general approach in Maine's Stormwater Management Law as originally developed and continuing, is a watershed-based approach. The DEP still considers this approach appropriate and has not revised the definition based on this comment.*

- 5) Comment: There is no definition of an impaired stream. While the list is provided the public is entitled to know the criteria that the Department utilizes to make the determination. The term should be defined. (N)

*Department response: "Stream" is defined in Chapter 500 consistent with how the term is defined in the Natural Resources Protection Act. The criteria for determining whether a stream is "impaired" are included with the list of impaired streams specified in Chapter 502. This statement of criteria is functionally a definition. It provides:*

*"A stream is considered impaired if it fails to meet water quality standards because of effects of stormwater runoff from developed land. Additional stormwater treatment controls are necessary in urban watersheds of impaired streams because proposed stormwater sources in urban and urbanizing areas contribute to the further degradation of stream water quality. Impaired streams are listed in Appendix B of this rule and include all streams listed under Category 4-A or Category 5-A in the 2004 Integrated Water Quality Monitoring and Assessment Report that have urban non-point source (NPS) indicated as a potential source."*

*The criteria (or definition) of "most at risk" waterbodies has previously been included together with the lists in Chapter 502. The department has continued this approach in the revisions, and kept the explanation of such terms in the same place for ease of use.*

## **Section 4. Stormwater treatment standards.**

### **Section 4(A). Basic standards.**

- 6) Comment: Section A, Basic standards, does not integrate well with Section 7, PBR. The section should clearly state that the projects listed in 4(A)(1)(a) and (b) are only required to obtain a PBR pursuant to section 7. It is not clear how section 4(A)(2) applies to PBR projects, or any other projects. It also is not clear what is required of the applicant. Section 4(A)(3) refers to a section that does not seem to exist. Both of these sections should be deleted. (N)

*Department response: Language in Section 4(A) has been rearranged to add emphasis to when a project qualifies for PBR. Language has been added to 4(A)(2) to clarify that it applies to any project subject to basic standards. Section 4(A)(3) has been modified to correct an incorrect reference.*

- 7) Comment: In the Basic Standard, there doesn't seem to be any reference to performance requirements; it only lists a number of land-based BMPs. What are the Basic Standards performance requirements and how have they been determined for the BMPs listed? (C)

*Department response: The basic standards are specified in Appendices A. Erosion and Sedimentation Control; B. Inspection and Maintenance; and C. Housekeeping. Only the standards in Appendix A fit the description of BMPs and, for those, performance standards are included. However, the comment may have intended to direct the question to the BMP Standards, under Section 4.B. General Standards. There is no longer a performance standard similar to the 80% TSS removal standard in the current rule. The basis for the proposed BMPs is described in the last section of this Basis Statement.*

- 8) Comment: The language in Section 4 (B)(1)(c)(iv) exempting re-vegetated utility corridors that create no additional impervious surface from the Best Management Practice (BMP) standards of Chapter 500 rightly recognizes that re-vegetated utility corridors differ in important aspects from other linear projects such as, for example, roads, which create extensive impervious surfaces and can significantly impact both stormwater quantity and quality. This same exemption should apply to projects subject to Section 4(A) "Basic Standards". Section 4(A) includes the requirements in Appendix A (erosion and sedimentation control), Appendix B (inspection and maintenance) and Appendix C (housekeeping). Erosion and sedimentation control and housekeeping would be required as part of any Site Location and/or Natural Resources Protection Act (NRPA) permit granted for a utility corridor project, and these are appropriate. However, the requirements of Appendix B (inspection and maintenance) are not appropriate for a re-vegetated utility corridor project. In fact, many of the requirements in Appendix B(3), "Post-construction" are only relevant to engineered stormwater management systems and other manmade structures (culverts, catch basins, resource and treatment buffers, parking lots, roadways) that

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are rarely if ever part of a re-vegetated utility corridor. At a minimum, Section 4.A. should exempt re-vegetated utility corridor projects from the requirements of Appendix B. (D, E)

*Department response: The department finds that the requirements in the Basic Standards are appropriate for vegetated utility corridors and therefore no changes to the standard in Appendix B (4) are necessary. If soil is disturbed, the erosion control measures in Appendix A are appropriate, as well as the need to inspect those areas until permanently stabilized as required in Appendix B. And likewise, the “Housekeeping” standards in Appendix C are appropriate for any construction project to meet. They are not expected to create a hardship for a utility corridor project.*

**Section 4(B). General standards.**

- 9) Comment: How do the existing 50% and 60% TSS ratings for “flow through” sedimentation devices relate to the 25% reduction in (the volume required for) the land based BMPs listed (in 4.B.1.c)? (C)

*Department response: Flow through sedimentation devices approved as pre-treatment devices under 4.B.1.c, as retrofit devices for redevelopment under 4.C.3 (new section) and for off-site mitigation under 6.A.2 must be tested using the department’s lab testing protocol currently used to define systems approved for 60% TSS removal. To be considered approved devices, systems must be sized, based on the results of the tests, to provide for 80 % removal of U.S. Silica grade OK-110 foundry sand at a flow rate equivalent to the peak flow from a one-year, 24-hour storm from the drainage area of the system.*

- 10) Comment: The proposed rule essentially limits compliance to the standard through the use of four BMP designs .... We believe the four BMPs were selected because they have the ability to mitigate thermal pollution, yet regrettably note that buffers, wet ponds and soil filters have limitations which can make them unsuitable for some locations. Principally, existing development and urban sites where historic land uses would exclude the land intensive buffer, filter and pond BMPs. The four allowed BMPs may be subject to diminished treatment function by climate or season, including winter freezing. To address this the department should add the so-called “approved” flow through sedimentation devices manufactured for the purpose of stormwater treatment as a listed BMP. As written, the rule would only allow their use as a pretreatment device. There is clear evidence that certain manufactured devices have been effective in removing sediments, hydrocarbons and floating debris from stormwater prior to discharge. Although these subsurface tank structures may not attenuate thermal pollution as well, they are more capable of providing treatment throughout the entire year, not experiencing seasonal effect of the other allowed BMPs. These devices are also more adaptable for improving stormwater quality from existing development, urban sites, or where topography limitations occur. (G)



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*Department response: In addition to providing sediment and hydrocarbon removal protection from thermal impacts, the four BMPs listed in the BMP standard were chosen because they remove substantial amounts of phosphorus and heavy metals, and also because, if sized as described in the rule, they would provide some stream channel protection from the relatively frequent 3 month to 2 year storm flows that account for much of the channel instability associated with urban streams. Based on experience studying urban streams, the department finds that the dominant causes of failure to meet aquatic life standards often are associated with trophic, and, indirectly, dissolved oxygen effects, toxic effects that may be associated with heavy metals, and stream instability; so it is important, especially in urban and urbanizing streams, that these stressors be addressed in new development. The manufactured flow-through sedimentation devices were not included because they cannot be counted on to provide similar nutrient or metals removal, and because they provide no attenuation of flows.*

*The rule does provide for use of manufactured flow through devices in some situations:*

- *As a pretreatment device for filters and infiltration systems, in which case the volume required to be treated in the filter can be reduced by 25%; and*
- *As retrofit on existing development to obtain off-site mitigation credits for proposed development in the watersheds of impaired urban streams.*

11) Comment: Section 4.B.1.b.iii says, "an infiltration system serving a development regulated under the Site Location of Development Act may be required to meet additional standards." What is the intent of this statement? (G)

*Department response: Section 4(B)(1)(b)(iii) describes the general standards concerning infiltration that are designed to protect groundwater. Through the rules, the department intends to provide consistent across-the-board infiltration standards, to the extent feasible and protective. The department recognizes the desirability of such standardization in terms of increasing predictability for applicants and simplifying administration for the department. However, the department also recognizes that it is not possible to address every conceivable project, site, or situation with such standards. In some cases, for purposes of large Site Location of Development projects, additional measures may be necessary to protect groundwater. Through the quoted statement, the department is preserving discretionary authority to take additional steps to protect groundwater if necessary, on a case-specific basis.*

12) Comment: CMP requests that Maine DEP clarify the language in Section 4.B.(1)(c)(iv)(dd). This section identifies one of the four exemption criteria as "A vegetation management plan for the project has been reviewed and approved by the department". It is appropriate for the Department to review a vegetation management plan to the extent that such a plan impacts stormwater quantity (peak flow duration and intensity), sediment removal, and phosphorus removal (if within an impaired lake watershed). However this review should not extend to herbicides. Herbicide formulations, use, application rates, labeling, and registration are all extensively regulated by both the Maine Department of Agriculture (Board of Pesticides Control) and the United States Environmental Protection Agency. Therefore, CMP requests this section be revised to read, "A vegetation management

plan for the project has been reviewed and approved by the department. This review and approval will not include or consider herbicide use". (D)

*Department response: The department does not agree that a review of a vegetation management plan should not extend to herbicides. While the Pesticide Control Board regulates herbicides, the department also has an interest in ensuring that their use does not pose a threat to water quality. The requested revision has not been made.*

### **Section 4(C). Urban impaired stream standard.**

- 13) Comment: The exemption included in Section 4 (B) (1)(c)(iv) should be included in, and should apply to, Sections 4(C) and 4(D) as well. Specific to 4(C), "Urban Impaired Stream Standard", the requirements of this section are not warranted when a utility corridor is re-vegetated and no new impervious surface is created. The compensation fee or mitigation required in this section is inappropriate when, as is the case, a re-vegetated corridor has minimal or no impact on stormwater quantity or quality, and when there may be no "pre-development impervious stormwater source" nearby/in the same watershed to treat, reduce or eliminate. Specific to 4(D), "Flooding Standard", a waiver provision exists for projects which result in an "insignificant increase in peak flow rates from a project site". We believe most or all re-vegetated utility corridor projects would meet this criterion. Therefore, rather than require a waiver to be requested and approved, adding the exemption currently included in Section 4.B.(1)(c)(iv), would have the same effect without the administrative burden. Overall, it would be simpler to understand (from the regulated community perspective), and simpler to administer (from the Department's perspective) if the re-vegetated utility corridor exemption included in Section 4.B.(1)(c)(iv), were instead inserted at the beginning of Section 4., after the "Stormwater Standards" paragraph, and before Section 4.A. "Basic Standards". This would make it clear that this exemption applied to such project for *all* standards (basic, general, urban impaired stream, flooding, and other). (D, E)

*Department response: The department agrees that the exemption for utility corridors in Section 4.B. should also apply to section 4.C with respect to urban impaired streams since the project should not result in additional impairment. Language has been added to provide such an exemption.*

*The department further finds that other developed areas that are re-vegetated in a similar manner to utility corridors should also not have to meet the compensation fee or mitigation requirements in Sections 4(C) and 6(A). Therefore, the department has revised the language in 4(C) and 6(A). to only apply the requirements for non-impervious areas that are landscaped. A definition has also been added for "landscaped area."*

*The department does not agree with exempting a utility corridor from the flooding standard in Section 4(D). While a vegetated utility corridor is unlikely to pose a flooding problem, a change in vegetation type (e.g., from forest to meadow) can result in an increase in runoff flow rates,*

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*which could pose a problem in an area already subject to flooding. The flooding standard only applies to disturbed areas of 20 or more acres in size.*

- 14) Comment: This section seems to indicate that projects in the watershed of an urban impaired stream must pay a compensation fee or mitigate via another impervious stormwater source. We take this to mean new projects will pay to fix the situation created by past projects, which were within standard at the time they were created. (G)

*Department response: The compensation fee provision for impaired stream watersheds is intended to fix problems due to past development. It was created because the proposed BMP standards will not provide 100% treatment of runoff from a new development. Therefore, additional treatment is needed for the department to make a finding that a project will not cause or contribute to a water quality violation. The department plans to propose a change in statute to give it authority to regulate existing sources of stormwater pollution as a way to off-set contributions from projects that do not trigger the compensation/mitigation requirement. Compensation or mitigation is only required of projects large enough to trigger the Site Location Law.*

- 15) Comment: MDOT had requested additional language to read: “Runoff from the project may not flood the primary access road to the project and public roads as a result of a 25-year, 24-hour storm and the design standard of the municipality, MDOT, and MTA.” Although department staff previously responded that it would be most appropriate for MDOT and MTA to apply any restrictions they deem appropriate in areas under their control, MDOT has no mechanism to do this. MDOT is often unaware of projects and the developers have no way of knowing that other standards could apply. MDOT is not asking the department to incorporate standards, but is requesting, as a public service, that language is incorporated so that developers know there are other standards that may apply. (O)

*Department response: Including the language suggested by MDOT would incorporate municipal, MDOT and MTA standards by reference, which would require all design standards applied by these entities to be a part of this chapter and filed with the Secretary of State as such. The department does not support this. However, the department agrees that a note referencing the possible applicability of other standards should the proposed project discharge such that a primary access road or public road would be flooded is appropriate. A note does not incorporate the information by reference. A note has been added to Section 4(D)(3).*

### **Section 5. Other applicable standards.**

- 16) Comment: Does the Section 5(A)(4) requirement mean that there must be a receiving channel within 300 feet of a level spreader if it doesn’t discharge to a buffer? That is what is implied, but that doesn’t seem correct. In a natural pre-development condition, shallow, concentrated flow would result if there is no receiving channel at an extended distance. Why is this not allowed for post-development scenarios? (G)

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*Department response: The department agrees that the requirement that a channel be within 300 feet of a spreader is not appropriate and has removed this requirement.*

- 17) Comment: Section 5.A.4 for a level spreader specifies maximum length of 25 feet unless approved by Department. Does adhering to the berm length for stone bermed level lip spreaders in the table of Appendix F Section 3 constitute approval by the Department? (G)

*Department response: No, level lip spreaders in Section 5.A. are used for dispersing flow from a channel, which is different than the use of stone berms referenced in Appendix F.*

- 18) Comment: Section 5 (D), which identifies the projects potentially subject to this standard should be moved to the beginning (i.e., becoming paragraph A). In addition, developers must be able to make rational decisions about a development project. In order to do that, costs must be reasonably ascertainable. Paragraphs B, C, and D remove a sense of certainty and fairness from the process. For example, paragraph B provides “stormwater standards for the waterbody must be met before the stormwater enter a wetland” unless otherwise approved by the department. Wetlands can and many times are effective buffers for stormwater. The suggestion that this practice cannot continue is unreasonable. Similarly the open-ended controls in paragraphs C and D are unreasonable as they are without restriction or quantification. Projects subject to these other standards will require additional DEP approvals (such as a Site Location permit), which already address these concerns. Thus, these paragraphs are unnecessary and should be deleted. (N)

*Department response: Since 1997, the department has had the authority to apply standards under Sections 5(B), (C), and (D), therefore the presence of these standards in the proposed rule merely preserves the department’s existing authority. During that time, these standards have been applied with little difficulty. Under Section 5(B), the applicant retains the option to utilize wetland resources as stormwater treatment areas after either demonstrating that there will be no adverse impact on the wetland or obtaining a permit under the Natural Resources Protection Act. The second paragraph in Section 5(B) clarifies in rule what has been applied as practice during the review of applications that propose directing stormwater to wetlands. This clarification adds rather than restricts predictability. A note included under Section 5(C) states that Title 12 M.R.S.A. § 7755-A requires the department, and therefore applicants, to consider potential impacts to threatened or endangered species. Additionally, Section 5(D) recognizes that a larger, site law size project may have an environmental consequence that is not addressed by the other standards for stormwater management. An example of such a development is metallic mineral mining, for which the presence of potential contaminants in stormwater runoff is recognized and should be addressed for effective environmental protection. No changes made.*

**Section 6. Compensation fees and elimination or reduction of existing on-site or off-site sources.**

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- 19) Comment: The department should indicate a willingness to be flexible to accommodate the compensation fee option. DEP should retain the proposed policy of not restricting the compensation fee option to only those areas with municipal plans. A statement of compensation fee flexibility should appear in the rule. (M)

*Department response: The department believes that the language clearly demonstrates the intended flexibility with respect to compensation and mitigation. The proposed rule states that “the department may allow the applicant to reduce the acreage treated or lower the phosphorus export reduction required to meet general standards in Section 4(B) and 4(C) through payment of a compensation fee or mitigation.” No changes made.*

- 20) Comment: Section 6 provides a compensation fee mechanism that is only for watersheds where a compensation fee utilization plan (CFUP) has been approved by the department. Are there any currently approved compensation fee watersheds? A listing, outside of the rule would be helpful. If there are few, and process to get watersheds approved is indefinite, then this is a nice concept that has little practical meaning. (G)

*Department response: This program has not yet been established, so no CFUPs currently exist. The department will establish guidance on how to create a plan. These plans are not envisioned as requiring a long-term effort, such as may be needed to create a watershed management plan. Rather, they are seen as a way of ensuring that if money is being paid to the department or municipality, then there is a plan for how it can be spent to result in real, on-the-ground water quality restoration work in the same watershed. Such a plan could be put together by a developer and submitted along with the development application, so it would be reviewed concurrently with the project.*

- 21) Comment: Recommend revision to clarify that “the state” is the entity that can designate if a municipal comprehensive plan is consistent with state law. (A)

*Department response: Changes have been made in Section 6(A)(3) to specify that the Maine State Planning Office is the entity that can designate if a municipal comprehensive plan is consistent with state law.*

- 22) Comment: Recommend that the allowance for delaying implementation of a watershed plan by up to five years be extended to watersheds located in Regional Service Centers identified pursuant to 30-A MRSA §4301, sub-§14-A. (A)

*This change was made, however the inserted language was modified to read “Service Center Community identified pursuant to 30-A MRSA § 4301(14-A)” to reflect language consistent with the referenced statute and a citation format consistent with rule.*

- 23) Comment: Section 4.C. requires mitigation or a compensation fee. This is a very good concept, however, as set out in section 6.A., it may be unworkable. The sentence (in 6.A.)

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“compensation fees may only be used in watershed(s) where a compensation fee utilization plan has been approved by the department” should be deleted. The second sentence should be retained. (N)

*Department response: The department needs to review and approve Compensation Fee Utilization Plans to ensure that there is a use for the fee money that will offset the stormwater impact from the proposed project. Without making this finding, the department would not be in the position of determining that a project will not cause or contribute to a water quality violation. Therefore, the sentence in question has not been deleted.*

24) Comment: In many instances, urban watersheds are targeted growth areas for the municipality and they are areas of existing development. Regulations that provide financial incentive to move outside of these developed areas contribute to sprawl. Because the compensation fees are substantial (and in addition to all control requirements) they may have the unintended consequence of sprawl. The fees should be reduced. Further impacts for portions of an acre should be prorated rather than counted as a full acre. (N)

*Department response: The department has chosen to only apply the compensation/mitigation requirements to larger projects that will usually trigger the need for a Site Location Law permit. The rationale for this approach is that reduction of discharges from existing sources will eventually more than offset the increases in stormwater discharges from smaller projects. For the large projects, however, the department finds that the proposed fees or mitigation requirements are justified and will allow the department to make the finding that these projects will not violate water quality standards. For large projects, the cost of meeting the compensation fee requirement is not expected to cause a development to relocate to an area that would increase sprawl. However, the department does agree that impacts to a portion of an acre should be prorated and has changed the footnotes to the Fee/Mitigation tables to reflect this.*

## **Section 6(E). Protection.**

25) Comment: Is legal protection required for on-site reductions or elimination for a development with a Site Location permit? These legal encumbrances appear unnecessary because any changes to an approved Site Location permit would have to go through the department for a permit modification or amendment. (G)

*Department response: This section requires areas in which an off-site or on-site pre-development stormwater source has been reduced or eliminated to be protected from alteration through either a deed restriction, a conservation easement or similar measure primarily to put any future owners of the property on notice that such a protection exists. According to Chapter 2 of the department's rule, transfer of department orders can occur after the legal transfer of a property has been completed. Therefore, title and deed information is often the first notice to a prospective buyer that a constraint exists on the use or alteration of certain areas on a parcel. No changes made.*

## **Section 8. Submissions and pre-application meetings.**

### **Section 8(A). Pre-application meetings for Stormwater Management Law projects.**

- 26) Comment: This section specifies all applications, except a PBR require a pre-application meeting. The confusing portion is the applicant must request the meeting “in writing” unless it is waived by the department “in writing”. Can a simple phone call result in a pre-application waiver? (G)

*Department response: Experience in administering the existing stormwater program has demonstrated that a pre-application meeting results in more complete applications. The submission of a brief project description and any preliminary plans prior to a pre-application meeting results in the appropriate review staff, such as engineers and geologists, participating in the meeting. Submission of written pre-application requests and information also allows the department to track the history of a project, particularly those in which a significant amount of time separates initial meetings and application submission. It would be possible for the department to waive a pre-application meeting by email or phone provided that the waiver is based on an initial review of the scope of a proposed project and the reasoning for the waiver is well documented in the project file. Language in Section 8(A) has been modified to read “A pre-application meeting is required for a project that does not qualify for a stormwater PBR, unless the requirement for such a meeting is waived by the department based on an initial review of project plans and scope.”*

### **Section 8(D). General standards submissions.**

- 27) Comment: Does every plan require a third party contract for maintenance? If only those systems to be maintained by a third party need to submit an executable contract then this submission requirement should say so. Another exception to contracted maintenance might be for municipal entities or large industry that have the capability of personnel and equipment necessary to service stormwater devices. (G)

*Department response: The department concurs that this clarification is appropriate and has modified language to read “Submit an executable contract with a third-party for the removal of accumulated sediments, oils, and debris within any proprietary devices and the replacement of any absorptive filters, if these measures are part of a project’s proposed stormwater management system. An applicant that has the personnel and equipment necessary to perform maintenance on any proprietary devices may submit a demonstration of capability in lieu of an executable contract with a third party.”*

## **Section 10. Conditions of approval.**

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## **Section 10(A). Standard conditions of approval.**

- 28) Comment: Condition 7 is not reasonable for small projects, especially since some of those projects may proceed without a contract. Even larger projects may not utilize as detailed or sophisticated a contract as contemplated by this condition. (N)

*Department response: Condition 7 is retained from the existing rule. A blank certification form is currently provided to each applicant with the signed copy of the department approval for a project. This form is required to demonstrate that a contractor retained to work on a project has been provided with and read a copy of the department approval, including any special conditions. A copy of the contract is not required as part of this condition, only the completion of the certification form. The department does not find that requiring contracts to include the language "all work is to comply with the conditions of the Stormwater Permit" to be unreasonable or overly complex. No changes made.*

- 29) Comment: Condition 9 should be eliminated. The department does not have staff to follow-up or enforce this provision. Perhaps more importantly many projects (e.g. subdivisions) do not have an effective way to carry out this requirement. For example, how will this requirement be fulfilled in a subdivision since the original developer may cease to exist? Many projects will maintain the facility including maintenance of stormwater. Those that do not will not be made to comply because it is merely self-policing. Without staff and resources for the department to inspect or even follow all certifications, this requirement is meaningless. The recertification requirement imposes excessive administrative burdens on both the regulated community and the Department without providing an environmental benefit. It should be eliminated. (N)

*Department response: When the department finds that a project meets specific stormwater standards, that finding is based on treatment through a functioning stormwater system. Based on nine years of administering the State's stormwater program and 34 years administering the Site Law, the department concurs with findings of a broad range of studies showing lack of maintenance as a primary cause of failure for stormwater management systems. To assure those approved stormwater systems function as intended, the department has in recent years been routinely requiring ongoing inspection and maintenance as a special condition on stormwater permits. Adding this requirement as a standard condition in the rule will add predictability for applicants. An existing condition compliance database will be used to track re-certifications just as the database is used now to track other conditions of permits. Standardized reports can be used to show overdue submittal requirements. The department intends to establish an automated system to remind permittees to submit re-certifications similar to the existing annual licensing fee notification used for the department's mining program.*

- 30) Comment: Section 10(A)(9), re-certification requirement, appears to apply only to the individual or PBR stormwater permits, not Site Location of Development permits. (G)



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*Department response: An additional section, Section 10-A, Conditions of approval, has been added to clarify that the re-certification requirement applies to Site Law projects. Section 10-A reads "The following standard condition of approval applies to a Site Law permit required pursuant to the Site Location of Development Law, 38 M.R.S.A. §§ 481 et. seq., in addition to those specified in 06-096 CMR 372.*

*10-A. Re-certification requirement. Within three months of the expiration of each five-year interval from the date of issuance of the permit, the permittee shall certify the following to the department.*

- A. All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.*
- B. All aspects of the stormwater control system have been inspected for damage, wear, and malfunction and appropriate steps have been taken to repair or replace the facilities.*
- C. The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the department, and the maintenance log is being maintained."*

*The department does not find it necessary to amend the standard in Appendix B (4) because it is non-specific and therefore applies to a stormwater or site law project.*

**Section 15. Experimental measures.**

31) Comment: The inclusion of the permit shield is essential, as history has demonstrated that efficiencies of stormwater management measure are not fully known. The experimental provision allows for and encourages innovation and technological advancement, however, failure to apply the permit shield to these measures is a significant disincentive. Since the Department must review and approve any measures that are allowed (and will require monitoring) it seems reasonable to extend the permit shield to these projects. (N)

*Department response: The permit shield from the existing chapter has been retained. The department has added a new provision called "experimental measure" to allow the department, on a case-by-case basis, to approve an experimental measure requested by the applicant. This provision helps to encourage the use of experimental measures. However, as the comment noted, the existing permit shield has not been made to apply to experimental measures. If an experimental measure does not perform as well as would have been expected from otherwise available best management practices, the department may require the permittee to replace or otherwise redesign the system. The risk associated with an experimental measure is borne by the applicant, rather than the resource. Department approval does not change this result. Because the measure is by definition experimental, there are associated risks that the Department cannot adequately evaluate. No changes made.*

## **Appendix B. Inspection and maintenance.**

32) Comment: Chapter 500 places a new and unnecessary burden on communities regulated under the NPDES Phase II Program for record-keeping, reporting and recertification for dozens and possibly hundreds of stormwater permits. Road right of ways are typically accepted by a municipality as municipal property provided they meet municipal standards. Over time, this could lead to a significant burden on the municipality if it has to meet regulatory requirements for each road individually.

A simple solution for the area of those towns regulated under Phase II would be to allow an exemption from the maintenance requirements only, since those towns are already required to meet a requirement to appropriately manage their municipal facilities (“good housekeeping” management measure). The exemption could apply to whatever portion of a town is subject to the maintenance management measure. If an area of a municipality is not subject to Phase II regulation, DEP should allow the municipality to bundle all stormwater permits into one permit with respect to on-going maintenance, reporting and recertification provisions.

The rules should make it clear that responsibility for maintenance lies with the permittee unless or until the system is formally accepted by the municipality or some other entity. Appendix B (5) implies this where it reads: “Perform maintenance as described or required in the permit unless or until the system is formally accepted by the municipality or quasi-municipal district . . .” The members of the Interlocal Stormwater Working Group (ISWG) would like to see this intent made more clear by adding language such as “the permittee shall” at the beginning of this section and all other pertinent sections.

The current norm among the ISWG is to accept road right of ways only, but not stormwater structures located outside the right of way, which remain with the development. The ISWG recommends that the first sentence in B (5) be revised to read: “If a municipality chooses to accept a stormwater management system or components thereof . . .” to make it clear that the municipality does not have to accept the whole system.

The ISWG members are concerned about impacts the proposed rule could have on downtown and growth-area development. DEP has worked to address this issue and there are measures in the rule that are clearly responsive to this need. However, there are some aspects of the rule about which there is still concern, such as the introduction of regulation of redevelopment, which is not regulated in some instances under the current rule. The ISWG members wish to express that they are on the front lines of these land use decisions and want to continue to work with the DEP to craft solutions to this issue. (J)

*Department response: The department agrees that the rules should not create additional reporting requirements for municipalities that are already required to report on their maintenance activities through the NPDES stormwater program. A change has been made to*

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*allow municipalities with regulated separate storm sewer systems to report on all regulated systems under their control as part of their required annual reporting in lieu of separate certification of each system.*

*In municipalities that are not regulated by that program, the department agrees that reporting should be simplified to the greatest extent possible. Municipalities will be allowed to report on multiple stormwater systems in one report.*

*The department also concurs with the recommended changes to clarify that municipalities will not be responsible for maintenance of a stormwater system, or a component of a stormwater system, unless it formally accepts responsibility for it.*

- 33) Comment: Municipalities should be exempt from the maintenance requirements for municipal property. Municipalities are frequently meeting the maintenance requirements in the proposed Chapter 500, but may not be following the proposed plan exactly. Consequently, a town may have to operate one set of maintenance requirements for its “regular” property, and another set for property it acquires that has been issued a stormwater permit; e.g., a road in a residential subdivision. The reporting and recertification process required in Chapter 500 would be a new layer of bureaucracy that will provide no real benefit to the taxpayer. Accordingly, municipalities should be exempt from all the Chapter 500 maintenance, reporting and recertification provisions for properties it owns. (M)

*Department response: Maintenance has been identified as a key element in the long-term effectiveness of stormwater treatment systems. Regardless of who owns a system, it needs to be maintained to derive the benefits in terms of water quality and quantity. A municipality should not accept ownership of a treatment system unless it is willing to take on the responsibility of maintenance. The department should be flexible in how a town reports on its maintenance activities in order to simplify the task of tracking multiple systems. The department will allow a municipality to report on all systems in one report.*

**Appendices B, Inspection and maintenance, and C, Housekeeping.**

- 34) Comment: Chapter 500 should clearly identify who is responsible for ongoing maintenance and inspection obligations. Appendices B and C inadequately identify the parties responsible for maintenance and inspection. Appendix A has a concise introductory paragraph identifying applicability. Appendices B and C do not have such a paragraph. (M)

*Department response: Appendices B and C do have introductory sentences that indicate that the appendices apply to all projects. The appendices also include requirements for an applicant to submit any information required to demonstrate standards are met and for a permittee to perform maintenance unless that responsibility is otherwise assumed.*

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35) Comment: The basic standards refer to Appendices A, B & C. The requirements of Appendix B, in particular, are unrealistic for the small project that qualifies for a Permit by Rule. These permits should require maintenance of stormwater control measures but should not require a log, and should identify what qualifications are necessary to be a person with knowledge. Also, it may not be possible to undertake corrective action before any storm event. These requirements need to be more realistic for these smaller developments. For all other projects, the requirement of Appendix B should be thoroughly consistent with the submission requirements in section 8(C)(2). It would be much easier to understand what was required if these provisions were consolidated. (N)

*Department response: A project that qualifies for a stormwater Permit by Rule (Section 7 of Chapter 500) is only required to meet Section 1 of Appendix B, which covers the needed inspection and maintenance during construction. The requirement to keep a log is necessary to document that the inspections and maintenance work are being followed. For anyone who is diligent about installing and maintaining erosion control measures, the log will not be very burdensome and will document the efforts being made. On the other hand, if erosion control measures are not taken or maintained, then the log is also unlikely to be maintained.*

*After consultation with the stormwater stakeholders technical workgroup, the department has chosen to allow for the possibility that individuals will choose to develop and apply knowledge in erosion and stormwater control. This option will be available for stormwater permit by rule projects and an example of the value of having this flexibility occurs in instances where an individual homeowner assumes sole responsibility for a project.*

*While storm events occasionally occur without much warning, most storms are forecast well in advance. Maintenance of erosion control measures is more important to carry out before a storm event than afterward, though it is important to also inspect after a storm event in order to determine what needs to be done before the next event. This can be of particular importance during the summer when intense thunderstorms may occur several days in a row. This requirement is realistic even for smaller projects, and it is very much needed if water quality protection during construction is to be achieved.*

*The department has not consolidated the submission requirements in Section 8 of Chapter 500 with the requirements of Appendix B because the submission requirements encompass much more than inspection and maintenance. However, Appendix B does reference the submission requirements in Section 8 and the department finds them to be consistent.*

**Appendix D. Standards for infiltration basins, dry wells, and subsurface fluid distribution systems.**

36) Comment: The introduction paragraph to Appendix D is repeated in the “NOTE” on page 38.  
(G)

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*Department response: The note on page 38 has been deleted.*

37) Comment: Definition 1(g) should be changed to “Source water protection area”. (F)

38) Comment: Definition 1(g) should be replaced with the existing legislative definition: 30 M.R.S.A. § 20-A. *Source water protection area. “Source water protection area” means an area that contributes recharge water to a surface water intake or public water supply well for a public drinking water supply. In order to qualify as a “source water protection area,” the area must be identified and mapped by the Department of Human Services, and that information must be given to the municipality in which the source water protection area is located. You may want to limit the definition to cover only ground water sources, but we’d feel more comfortable not introducing another hydrogeologic term of art into the already complex world of source protection.* (L)

*Department response: The proposed definition requires that these areas “be identified and mapped by the Department of Human Services”. The proposed language would limit the department’s ability to influence the location of infiltration systems or water supplies on sites that are subject to review but still in the design phase, so that the protection area has not been formally delineated or approved. In addition, the language in the rule allows the department more flexibility to use information that may have been developed by the applicant or others to more accurately delineate this area. The proposed language has, however, been modified to emphasize the connection between the proposed rule and the source water protection area definition. The definition now reads:*

*(g) Zone of contribution or delineated contributing area. The area that contributes water to a water supply well, generally represented as the projection of the three-dimensional volume of water flowing to a discharging well onto a two-dimensional map view.*

39) Comment: It is important that the rule specify best available technology to control stormwater discharge to a source protection area. (M)

*Department response: The department believes that the restrictions on sources and the design criteria already placed the rule will reduce the risk placed by normal operations at those sources for which infiltration is allowed. The rule notes that all developments are subject to the groundwater quality standard of 38 MRSA §465-C (1), and states that additional requirements may be applied on a case-by-case basis.*

40) Comment: The rule may discourage some useful infiltration of uncontaminated stormwater in sandy, flat areas where the source water protection areas cover a large portion of the developed and developing area. (L)

*Department response: The rule as a whole is intended to encourage applicants to separate those portions of runoff that require greater treatment from those that do not, and to allow for*

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*discharge of the cleaner water to buffers or other practices that would allow infiltration. For most sites where infiltration is a practical method of stormwater management, such separation would generally allow pre-development recharge to be approximately maintained.*

41) Comment: We have concerns over “blast rock” being considered as overburden for the purposes of locating infiltration systems. (L)

*Department response: The comment points out an unintended error and the proposed text has been revised as follows.*

*“Thickness of blast rock or similar material is not counted toward the required thickness of overburden; blast rock or similar material is not considered as bedrock.”*

42) Comment: What is meant by “Wetting of buffers meeting department requirements for use as stormwater control”? Also, the last paragraph of the rule appears to be inconsistent. (N)

*Department response: If a buffer is used according to the department’s standards, then water infiltrating into the ground within the buffer ( i.e., “wetting of the buffer”) is not considered to be infiltration under the definition. The definition of infiltration proposed in the rule is not intended to be a scientifically complete definition of the process of infiltration, but instead is intended to function within the context of this rule and other rules and programs to allow for effective management of stormwater. The department recognizes that some of the water discharged to a quality or quantity buffer may reach the saturated zone.*

*The last sentence of the definition notes that practices such as underdrained ponds provide filtration of water but do not necessarily discharge that water into the ground. That is, stormwater is filtered through such a practice and then is discharged elsewhere. As suggested in the proposed rule, such a practice may provide quality treatment so that water may be subsequently discharged to an infiltration system, but an infiltration system is not necessarily part of an underdrained pond or similar BMP.*

## **General Comments**

### **Chapter 500/502 Comments from Public Hearing on August 19, 2004**

43) Comment: During the past twenty-five years, I have had the opportunity to spend time on many of Maine’s pristine lakes and ponds, assessing water quality. I worked with the Congress of Lake Associations and the DEP in the development of a methodology for surveying lake watersheds to assess the impacts of polluted stormwater runoff on lake and stream water quality. As a result, dozens of citizen groups throughout Maine have participated in watershed surveys, and thousands of specific stormwater runoff problems have been identified.

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One of the most striking findings of watershed surveys has been the widespread degradation of stream habitat as a result of uncontrolled stormwater runoff from development. In lake watersheds, this problem is often manifested by the formation of large sediment deposits where tributaries enter the lake. Watershed assessors use such deposits as evidence of upstream channel instability that has occurred as a result of the cumulative effect of increases in runoff from all forms of existing development. When streams become degraded, the entire lake system is affected, resulting in cumulative negative effects on water quality, on aquatic habitat and on ecosystem function and integrity.

The potential negative effects to water quality from development-related changes in stormwater runoff have been studied extensively and are well known. As development pressure increases throughout Maine, we must be prepared to protect our water resources beginning with the smallest streams, which may only flow for brief periods during the annual cycle, but which are integrally connected to larger streams, lakes and river systems. The proposed Chapter 500 standards will go a long way toward achieving this goal by providing more comprehensive protection for streams that includes channel protection, a major source of sedimentation, nutrient enrichment and habitat degradation in streams and lakes. Stream and lake habitat restoration is achievable, but at a very high cost. As is always the case, protection or prevention of habitat and water quality degradation is simpler and much less costly over time. (B)

*Department response: No response necessary*

- 44) Comment: Stormwater is a problem, especially on small streams. This is an important issue that DEP is grappling with fairly well. NRCM participated in the stakeholder process, which was exhaustive. It was a huge group who worked more or less constructively. The rules do deal with streams. DEP has done some creative things in this rule with compensation fees and credits. There may be “wrinkles” that need to be ironed out, but DEP is trying to be flexible and constructive.

One issue of concern is in Section 4.C., the urban impaired stream standard. Subsection 1 says that if a project located within the direct watershed of an urban impaired stream or stream segment listed in Chapter 502 results in three acres or more of impervious area, or 20 acres or more of developed area, then the urban impaired stream standard must be met. That is a large threshold for getting a project into this program. I think it’s possible for projects to have a significant impact at a smaller size than that. What DEP has said, and I think this is a reasonable answer, is that along with this package of stormwater rules, they plan to request that the Legislature give DEP authority to deal with existing sources of stormwater. These stormwater rules are just aimed at new development and construction. Obviously, we have impaired waters that are out there because of problems that exist, not new ones. What DEP has said is that as long as they get the authority from the Legislature to deal with existing sources, then this large threshold is not going to be an issue because they are going to be dealing with the key sources of impairment that already exist, and the watersheds will be able

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to absorb some of these smaller projects. I accept that rationale as long as the Legislature does indeed give them that authority. That's not a guarantee and could be a tough fight. This issue might have to be reexamined depending on how that proposal goes in the Legislature.  
(P)

*Department response: The department shares the concern that existing sources of stormwater pollution will need to be addressed if progress is to be made in restoring water quality in some urban streams. The department does intend to submit a bill to the Legislature that would provide the department with the authority to regulate existing sources that have been identified through an assessment of the watershed known as a Total Maximum Daily Load (TMDL) assessment.*

45) Comment: We are glad to see the single standard being applied to all development over one acre in size. Our major concern is the exemption of under one-acre developments. Based on what has happened in Bangor, this leaves too much responsibility with the municipality to set appropriate standards. An example can be seen at 824 Stillwater Avenue in Bangor where the parking area slopes directly downward towards and into Penjajawoc Stream in an area that is not yet impaired. The building and parking area occupies much too big a footprint for the amount of land it's on. When this type of development is replicated over and over in a single watershed, it can have the same or worse cumulative effect as a much larger development. The omission of under one-acre development does not facilitate responsible development.

In addition, the city pressured the DEP into abandoning Shoreland zoning regulations for 75 feet of buffer. Many buildings already built were grandfathered, but this one got grandfathered before it was even built. The area needs more buffer to protect wildlife habitat around the Penjajawoc marsh. We are appalled that DEP allowed regulations to be bent in an area which DEP was well aware has highly sensitive wildlife and environmental value. In several different places on this property, the measurements from the high water mark are under 50 feet to the building, which the DEP enforcer told us was due to beaver activity, which presumably occurred after the permit had been issued. Had the set-back distance been 75 feet, there would have been more room for the beavers, but not for part of the parking lot that goes directly downhill towards the stream. This shows that municipalities should not be in the position to regulate development, which has a direct economic impact on the town or city.

We urge the Board to vote to uphold Shoreland zoning regulations and add the one-acre jurisdiction to the Chapter 500 rules to all developments under one acre, and apply them to all water bodies, including streams. (Oral comments of Hope Brogunier for K)

*Department response: The department does not currently have the resources to expand jurisdiction under the Stormwater Management Law to include projects that disturb less than one acre. The existing Erosion and Sedimentation Control Law (38 M.R.S.A. § 420-C) requires*



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*that controls be installed and maintained during construction, regardless of the size of the area disturbed, and therefore provides some measure of protection for natural resources and their associated watersheds. The implementation of the Shoreland Zoning Act is not relevant to this rulemaking proceeding.*

- 46) Comment: The encouragement to use low-impact development (LID) measures is admirable. Unfortunately LID can conflict with local ordinances or zoning, perhaps most often with communities that have delegated review authority. An example is the roadway design standards carried in many ordinances. Wide roads with curbing depicted within design ordinances promote the use of pipe storm drain systems. LID would ideally achieve narrower roads, vegetated shoulders, no curbs, and the use of drainage ditches. Until local ordinances catch up with and adopt the LID concepts their use may be more a wish than a reality. (G)

*Department response: The department recognizes that the acceptance of LID development measures and design parameters is not yet widespread in Maine, which is why these measures were mentioned in a note rather than as a required standard in the proposed rule. It is the department's intent to encourage interest in LID measures, believing that as the benefits of this type of development are recognized, more Maine municipalities may choose to add flexibility into their ordinances to consider a project that incorporates LID design features.*

- 47) Comment: DEP should make a stronger statement regarding consolidation of the state stormwater permit with the state MCP permit...DEP should clarify that it fully intends to consolidate these two permits wherever possible within a specific timeframe. (J, M)

*Department response: The department will consolidate permitting pursuant to the Stormwater Law and the Maine Construction General Permit (MCGP) whenever possible as a benefit and cost saving to both applicants and department staff. However, there is a need to allow for the possibility of not being able to consolidate these permitting requirements by retaining the stand-alone MCGP program as delegated to the State by EPA. An example of an instance in which MCGP permitting may not be possible under the Stormwater Law is the filing of a Notice of Intent (NOI) for the MCGP for a project that is exempt from Chapter 500, such as a project located in an unorganized area of the State. The construction of a single-family residence is also exempt from stormwater permitting, however disturbance of one acre or more associated with its construction requires a MCGP. If an application were submitted near the expiration of the MCGP, separate submittal of a MCGP NOI would also be required.*

- 48) Comment: By volume measure the current 23 pages of rule being expanded to 62 pages appears to be an intensification of regulatory process. To the Department's credit the larger rule contains standards and submission requirements that have been previously understood, but not in writing, and the bulk of the content is design materials appended to the rule. The additional rule material should not result in a proportional 270% increase in analysis. (G)

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- 49) Comment: The rules expand the scope and applicability of the stormwater program. In addition, the rules require significantly more of both the department and the regulated community. Given the Department's budgetary constraints MEREDA is concerned that the department may not have the ability to fulfill all of the requirements of the rule... MEREDA believes that the rule should be further streamlined to continue to protect the environment while reducing the burden on both the department and the regulated community. (N)
- 50) Comment: At the stakeholder group, DEP explained that it will be able to manage Chapter 500 within existing resources for various reasons, including the benefits from program simplification. It would be good if there were more than a statement from DEP that it can handle the additional duties. A more detailed projection of number of permits that will be processed, staff hours to process permits, staff hours on compliance, etc... Please provide in the basis statement an explanation of how DEP can manage the seemingly burdensome and time-consuming tasks of everything from pre-application meetings to the 5-year maintenance review/re-certification process within existing resources. (M)

*Department response: The expansion of the rule from 23 pages of existing text to 26 pages (without the appendices) is largely due to inclusion of tables and submission requirements intended to create a more understandable rule. Including the material in the additional pages that compose the Appendices is important to provide as much guidance as possible to the regulated public.*

*Overall, the number of stormwater applications is expected to remain approximately the same. It is expected that additional projects requiring permitting due to their disturbed area will be roughly balanced by the number of projects no longer requiring a permit (i.e. those projects creating more than 20,000 square feet of impervious area in a most at risk watershed, but disturbing less than one acre). The number of stormwater Permit by Rule level projects will approximate the number of MCGP NOIs currently received by the department.*

*Project managers and department engineers currently expend a significant amount of time detailing missing information, transmitting requests for additional information to applicants, and reviewing that additional information. By detailing general information requirements through the rule and project specific requirements through pre-application meetings, it is expected that the department's analysis of applications will be more efficient because material clearly requested during pre-application meetings should result in the submission of complete applications containing all information required to determine whether all applicable standards are met. Department staff agrees that the additional time spent in a pre-application meeting for a stormwater projects will be saved on the application processing if department guidance provided at the meeting is followed by the applicant. Project managers currently perform compliance inspections and follow up on any conditions associated with a project as a part of their current workload. Because the total number of stormwater projects is not expected to change drastically, compliance responsibilities should remain at existing levels.*

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*As is evidenced in the flowchart accompanying the rule, the rule has been streamlined to the greatest extent practicable, with considerable input from stakeholders with a similar interest in simplifying the rule, considering the complexity of the subject matter.*

51) Comment: From the design perspective, the proposed rule limits the alternatives for achieving the standard. The current rule has flexibility to provide more treatment in one area of a site to compensate for less treatment in another. The specified percentages (95% of impervious, 80% of developed area) remove this flexibility as all new developed areas will require treatment. Furthermore, the proposed rule appears to prescribe treatment options, proscribe creativity, and allow no treatment credit for swales, dry ponds, or catch basins hoods. Removed from the rule are equations where such credits can be applied. The flat volume treatment might be easier because it's the one size fits all approach, but really it limits treatment options and takes much of the design right out of the picture. (G)

*Department response: The proposed rule retains this flexibility and in many cases expands it. Provided that the total percentage of the site treated meets the specified percentages, there is no restriction on treating runoff from a site in one location or in many locations, varying the amount of treatment per location. The emphasis of the proposed rule is on quality treatment, rather than quantity treatment as in the existing rule, and therefore swales, dry ponds, or catch basin hood, which are primarily quantity control measures are not specifically listed as measures intended to meet the general stormwater treatment standards. However, the proposed rule states that "the department may, on a case-by-case basis, consider alternate treatment measures to those described in this section." An applicant may choose to incorporate a measure other than those listed in Section 4(B) provided that the alternate treatment measure provides at least as much pollutant removal as the treatment measures listed and, unless otherwise approved by the department, as much channel protection and temperature control.*

52) Comment: The rules will help control a component of non-point source pollution, but are inadequate to improve water quality. Shoreland zoning, erosion and sedimentation control, stormwater management and NPDES II are all necessary but may become meaningless without resources to enforce or administer them. This needs to be addressed. (F)

53) Comment: Local Code Enforcement Officers (CEOs) are often too busy and too pressured to understand or care about the rules. DEP must provide support and require appropriate action from local CEOs. Otherwise, enforcement will be haphazard. (F)

*Department response: The department shares these concerns, but cannot guarantee what future funding will be for these programs. Regardless of future funding for administration and enforcement, the department concludes that the proposed revisions to the Stormwater Rules will improve the program.*

54) Comments:

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- Control of projects of over one acre is a good start, but is not enough, and will result in contractors doing projects to avoid regulation. Both landowners and contractors must be held responsible for stormwater management.
- Education of landowners is key. There should be strong focus on communicating changes to local officials, because they are the ones who will (or not) make things happen.
- To effectively deal with the recalcitrant 10% of contractors who are causing problems, the state needs a strategy, based on incentives for doing things right, and disincentives for those who do not do things properly. (F)

*Department response: The department agrees that an effective stormwater management program requires a commitment to enforce the law as well as education and outreach. The department has Enforcement & Field Services staff who will be trained on the requirements of the new regulations. However, given limited staff resources, the department will continue to exercise judgment as to when to initiate enforcement action. The department is also supporting outreach through a program known as Non-point Education for Municipal Officials (NEMO) and through publication of information that it makes available to municipalities. The department also runs a voluntary Contractor Certification Program for erosion and sedimentation control and has been evaluating how to increase participation in the program.*

55) Comment: DEP should consider the elimination of the Erosion and Sedimentation Control (ESC) Law as Part of Stormwater Rulemaking. The ESC Law is primarily aimed at minimizing soil erosion from construction activity. It is not a permit program. According to a DEP report, it is sparsely followed and rarely enforced. The goals and objective of ESC are now re-codified into the Stormwater Rules as the “Basic” level of stormwater management that will apply to every project needing a stormwater permit. Eliminating the ESC Law is necessary to meet the goal of simplifying the stormwater program. Since the stormwater rule is a permit program, it is much stronger than the ESC Law is. The ESC Law is therefore unneeded.

The only substantive change from the elimination of the ESC Law as an independent requirement is that projects less than one acre would be exempt from ESC requirements. However, elimination of the ESC appears necessary to eliminate “multiple and sometimes confusing, thresholds for jurisdiction” which is a major goal for these revisions.

If ESC is not eliminated, but Chapter 500 revisions are adopted, answering citizen questions could be difficult for a local code enforcement officer. For example, if a developer has two projects, that are one-half acre and three acres in size respectively, the local code enforcement officer would need to indicate that erosion control requirements apply to both projects, but that a permit is only needed for the larger one. This is bureaucratic nonsense.

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Further, most projects that are less than one acre in size are single family homes and the legislature has provided special exemptions for single family homes. Thus, the proposal to eliminate the ESC Law would be consistent with general legislative policies.

Lastly, if the DEP's Chapter 500 policy objectives are realized, it is hard to believe that DEP will enforce the law, given its status as a non-permit program. (M)

*Department response: The department does not support elimination of the ESC Law. The department did find that 44% of construction sites were not in compliance with the law during a study in 2003. While this represents a substantial level of non-compliance, it does not indicate that the law is "sparsely followed." The numbers do show the need for more education, which we the department has been steering more resources to. The ESC Law provides the backbone of the department's training program, including the voluntary contractor certification program. People, particularly contractors, use erosion control not just because it is the right thing to do, but also because it is the law. A small construction site that is less than one acre in size can have a significant impact on a small stream. Having a law that requires erosion control on such a site is appropriate. The department cannot take enforcement action on every violation of the law, but where non-compliance on a site threatens a sensitive water body, enforcement action has been taken, and will continue to be taken in the future.*

*The department provides training on the laws to local code enforcement officers. The differing requirements for a project less than one acre versus a project one acre or more in size is not overly complex. Contrary to being "bureaucratic nonsense," increasing the level of regulatory oversight based on the size of a project is a logical way to manage limited resources.*

*In 1996, the Legislature passed the ESC Law and applied it to all new development, even while at the same time exempting single family homes from the requirements of the Stormwater Law. The law requires small house sites to use erosion control. The proposed changes in Chapter 500 do not in any way lessen this need.*

56) Within the rule, and particularly within the appendix sections, there are numerous specific design requirements such as width, lengths, soil gradations, etc. Unlike some other regulated pollutant sources, e.g. wastewater, stormwater treatment is in relative childhood, research continues, and there is not consistent guidance or regimented accepted practice. It would be appropriate to cite the sources of the design standards carried forth in the new rule to document the origin of the information, whether this be a book or a research project. (G)

*Department response: Providing the sources of technical background information used to develop the proposed standards would add additional complexity to the proposed rule. Instead, the resulting standards are described in the rule along with specific submissions that demonstrate that a standard will be met for a specific project. However, the department recognizes that the sources of design standards may prove useful to professionals preparing*

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*stormwater applications and so has included information on the technical basis and sources of information with this Response to Comments as Attachments A, B, and C.*

## **Chapter 502**

57) Comment: Request that the location of Halfmoon Pond be changed to the Town of Prospect, where it is the Searsport Water District's emergency water supply. (L)

*Department response: The department concurs that the wrong Halfmoon Pond (St. Albans) was listed in Chapter 502. The Halfmoon Pond which is located in Prospect and Searsport should be listed because of its status as a backup water supply. The Halfmoon Pond in St. Albans does not meet the criteria for listing. Therefore, the location of Halfmoon Pond has been changed.*

## **Statute**

58) Comment: Certain activities are exempt from the Stormwater Management Law, including: "Construction projects at industrial facilities for which a federal storm water permitting application has been made or construction projects at facilities for which storm water is regulated under an existing federal discharge permit do not require review pursuant to this section." The proposed rules are ambiguous on whether there will be an effort to amend or delete any of these statutory exemptions. Is it the intent of the DEP to amend or delete through legislation (as opposed to rules, which would be unlawful) any aspect of this or any other exemption currently set forth in Section 420-D? (H)

*Department response: The DEP does not amend or repeal statutory exemptions through rulemaking. The DEP recommended certain statutory changes to the Stormwater Management Law in the report "Improving the Effectiveness of Stormwater Management in Maine" (2/2004), and will review whether this recommendation needs to be updated prior to submitting legislation for the First Regular Session of the One Hundred and Twenty-Second Legislature.*

59) Comment: It is my understanding that the current DEP stormwater rules do not apply to LURC jurisdiction but that DEP was delegated authority to administer the EPA Phase II rules within the entire state, including LURC jurisdiction. (I)

*Department response: That is correct. The standards adopted pursuant to the Stormwater Management Law, 38 MRSA 420-D only apply to a project that is located within an organized area of the State. Note however, that Chapter 500 and 502 also apply to developments permitted under the Site Location of Development Law (Site Law). In rare cases, the DEP may review projects under the Site Law within LURC jurisdiction. See 38 MRSA 488(9).*

*DEP has been delegated authority to administer the federal wastewater discharge system (NPDES) within Maine. This includes the federal stormwater program.*

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60) Comment: In the current draft version of Ch. 500 that has been posted to public comment, there is no mention of LURC. Title 38, Section 420-D appears to exclude projects located outside of organized areas. Am I correct in assuming that Ch. 500 will not apply to LURC jurisdiction? Or will there be changes made to Section 420-D to include LURC's jurisdiction? If no changes are made to the statute, then how does DEP plan to administer the EPA phase II program within LURC's jurisdiction? (I)

*Department response: The Maine Stormwater Management Law only applies to a project or any portion of a project that is located within an organized area of Maine. See 38 M.R.S.A. 420-D, first paragraph. Ch. 500 only applies within LURC jurisdiction to the extent review under Site Law is required, which is rare (ex. for a oil terminal facility or metallic mineral mining operation). The extent to which Site Law review is required within LURC jurisdiction is described at 38 M.R.S.A. 488(9). In its proposed revisions to the Stormwater Management Law included in the legislative report, "Improving the Effectiveness of Stormwater Management in Maine" (2/2004), the DEP did not propose to amend the Stormwater Management Law so as to extend the DEP's review authority under that law beyond organized areas.*

*It is not necessary to make changes to the Maine Stormwater Management Law, in regards to areas within LURC's jurisdiction, in order for DEP to administer the EPA phase II program. DEP uses its authority under Maine's Waste Discharge Law, which already applies state-wide, to administer the Phase II program. It is possible that when the Maine Construction General Permit (MCGP) is next issued, the DEP may reference most of the basic standards contained in Chapter 500, rather than specifying them within the permit itself. The standards in the proposed Chapter 500 are very similar to those included in the existing MCGP. If standards in Ch. 500 were referenced in a future MCGP, they would be enforceable under the Waste Discharge Law. It is not necessary to amend the Maine Stormwater Management Law to accomplish this.*

61) Comment. I talked to DEP staff early on in the pre-rulemaking process about how LURC would be regulated under Phase II. At that time, the plan was to update Title 38 to include LURC jurisdiction, but only require basic standards (E/S control, basic stabilization, inspection and maintenance for large projects, and housekeeping) be met through the general permit (NOI) process for only those LURC projects disturbing 1 or more acres. An informal draft of Ch. 500 from August 2002 included such language specifying standards related to projects located within LURC jurisdiction:

"(4) Projects located within LURC jurisdiction. A project including from one to five acres disturbed area must meet the following standards: Erosion and sedimentation control (see Appendix A), basic stabilization (see Appendix B), and housekeeping (Appendix D). A project including five acres or more of disturbed area must meet the standards in Appendices A-D."

There was also language dealing with DEP authorizing LURC to administer the stormwater program in the future:

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"11. Land Use Regulation Commission Program (unauthorized areas). The department may authorize the Land Use Regulation Commission (LURC) to administer the portion of the stormwater program covering construction activities that do not require a permit pursuant to the Site Location of Development law to the Land Use Regulation Commission (LURC), if it determines that the requirements of LURC's program are at least as strict as applicable standards and procedures specified in the permit by rule section where applicable, and require standards at least as strict as this chapter for projects in most at risk watersheds. The department and LURC may agree to include all or a subset of activities."

This language was included in an effort to avoid creating any unnecessary and duplicative permitting requirements for our constituents by ensuring that there would be a simple way for LURC to take over the NPDES stormwater program. I am wondering whether this language was intentionally omitted in this latest draft? If so, it continues to be LURC's position that there should be a simple mechanism in place for LURC to obtain authority to administer the EPA Phase II program for our jurisdiction. In the meantime, if DEP plans to amend section 420-D of Title 38 and thus apply Chapter 500 to the entirety of the state, then it is also LURC's position that no stormwater requirements above and beyond what EPA Phase II program requires should be applied to LURC jurisdiction, as illustrated in the August 2002 draft language quoted above. (I)

*Department response: Early on in the development of the rule revision, DEP considered adopting standards pursuant to both the Stormwater Management Law and the Waste Discharge Law. This was later rejected for a number of reasons. The DEP is also no longer proposing to amend Stormwater Management Law so that it would apply within LURC's jurisdiction. Therefore, the referenced provisions no longer were applicable. The DEP will continue to work with LURC to investigate how the Phase II process may be better coordinated for projects within unorganized areas. This does not require a change to Chapter 500.*



**Attachment A**

**Source of Design Standards for Vegetated Buffers**

The sizing requirements for the four types of buffers addressed in Appendix F and the associated specifications for stone bermed level lip spreaders were determined using a specific application (unpublished) of the HydroCad 7.00 model as developed by John Simon for the purpose of sizing buffers (vegetated filter strips) to insure that they function effectively and are not hydraulically overloaded. The application was developed specifically for this purpose, and was the culmination of a study that Mr. Simon performed for DEP and for the Stormwater Technical Work Group in which he reviewed all available literature on water quality buffer and vegetated filter strips. Mr. Simon is a Registered Professional Engineer with many years of experience in stormwater management and hydrologic modeling, and is one of the most respected authorities on these topics in the state. Guidance for using this application of the HydroCad 7.00 model will be developed by the department and made available to designers who wish to optimize the design and sizing of their buffers.

## **Attachment B**

### **Source of Urban Impaired Stream Compensation Fees and Off-site Mitigation Credits**

The additional requirements for projects in the watersheds of urban impaired streams results from a recognition that even if the standard BMPs are installed on a project, the stormwater pollutant load discharged to the receiving water will still exceed predevelopment levels. This becomes a problem if the receiving water is a stream that does not attain its water quality classification standards because of the effects of urbanization of its watershed. In order for the department to issue a permit for discharge of stormwater, it must make a finding that the discharge will not cause or contribute to an impairment of the receiving water. If the stream is already impaired as a result of urbanization of its watershed, including the discharge of contaminated stormwater from urban surfaces, the department cannot reasonably make a finding that a new discharge of polluted stormwater would not further contribute to the impairment even if the level of pollutants in the stormwater has already been reduced substantially by the General BMPs. Since it is usually not technically feasible for a project's stormwater to be treated to predevelopment pollutant concentrations, the only alternative available is for the project to reduce the current pollutant load to the stream in order to compensate for the remaining post-treatment pollutant load from the project site. This section requires projects to provide this compensation either directly through mitigation of existing off-site impacts or indirectly through contribution to a compensation fund that will be used to address existing impacts in the watershed.

The table in Chapter 500, Section 6.A.1 indicates how much compensation a project must provide. These values are derived from expected post-treatment phosphorus export from the site, with a \$10,000 compensation fee or a single mitigation credit compensating an estimated 1.0 lb of post-treatment phosphorus export from the project site. Estimates of post-treatment phosphorus export are based on the assumptions that:

- (1) pre-treatment phosphorus export will be 2.0 lb/acre/year from the non-roof impervious portions of the site; 0.8 lb/acre/year from roofs and 0.4 lb/acre/year from landscaped area; and
- (2) installation of standard BMPs will attenuate all but one fourth of the pretreatment phosphorus export. Phosphorus is used because it is the nutrient of most concern and because it responds to treatment in a similar fashion to most of the toxic pollutants. Also, more is known about the phosphorus reduction effectiveness of various BMPs than for most other pollutants.

The table in 6.A.2 indicates the amount of credit earned for various off-site mitigation activities and is based on the same assumptions as above with the exception of the last row in the table, "Retrofit (existing) detention with vegetated gravel underdrains." Although some enhanced phosphorus attenuation can be expected from this measure, its main benefits to the stream are channel protection and temperature regulation. These benefits may contribute to stream attainment of classification standards as much as attenuation of phosphorus and other associated pollutants.

## **Attachment C**

### **Source of Design Standards for BMP standard sizing.**

The values in the BMP standard (4.B.1.b) for the required storage and treatment for filtration and infiltration systems are 1.0 inches of runoff from the subcatchment's impervious area and 0.4 inches from the subcatchment's landscaped area. These values were selected to meet the following objectives:

- Define a water quality storm that would ensure that most of the runoff would receive treatment. The 1.0 inch of runoff from impervious surfaces is roughly a 90<sup>th</sup> percentile runoff event for Maine.
- Insure that, for projects with a high percentage of relatively permeable lawn area (e.g., golf courses), a sufficient amount of storage would be included to capture and treat runoff from the less frequent and larger runoff producing storms which account for much of the nutrient export from these areas. This would not necessarily be accomplished if the volume had been expressed as the runoff from a 90<sup>th</sup> percentile precipitation event.
- Define a system that, based on current sizing requirements, could be expected to remove a substantial amount of the annual phosphorus and heavy metal stormwater load (60% to 70% phosphorus removal) under reasonably high use watershed conditions.
- Provide enough storage and slow release so that the potential channel erosion effects of relatively frequent storms would be mitigated; and
- Keep the calculations simple.

The values in the BMP standard (4.B.1.b) for the required permanent pool (1.5 inches from impervious area, 0.6 inches from landscaped area) and detention (1.0 inches from impervious area, 0.4 inches from landscaped area) storage volumes for wet ponds were selected to meet the following objectives:

- Define a water quality storm that would ensure that runoff from most storms would have a 2 week plus detention time in the wet pond.
- Insure that, for projects with a high percentage of relatively permeable lawn area (e.g., golf courses), a sufficient amount of storage would be included to capture and treat runoff from the less frequent and larger runoff producing storms which account for much of the nutrient export from these areas. This would not necessarily be accomplished if the volume had been expressed as the runoff from a 90<sup>th</sup> percentile precipitation event.
- Define a system that, based on current sizing requirements, could be expected to remove a substantial amount of the annual phosphorus and heavy metal stormwater load (60% to 70% phosphorus removal) under reasonably high use watershed conditions.
- Provide enough storage and slow release through the gravel underdrain so that the potential channel erosion effects of relatively frequent storms would be mitigated; and
- Keep the calculations simple.